

10/532572

International application No.

PCT/NZ2003/000235

## INTERNATIONAL SEARCH REPORT

## A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. 7: E02D 7/08, E04G 23/08, E01C 23/12, E21B 1/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Dwpi: E01C 23/12, E02D 7/06, 7/08, E04G 23/08, E21B 1/02, 1/12, 4/08, B25D 1/14, B66F 15/00

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4813494 A (BEARD et al) 21 March 1989 The whole document	1-15, 17, 26-33
Y		16, 18-25
X	US 3568657 A (GUE) 9 March 1971 The whole document	1-15, 17, 26-33
Y		16, 18-25
X	US 5699864 A (DVORAK et al) 23 December 1997 The whole document	1-15, 17, 26-33
Y		16, 18-25
X	AU 16544/95 A (BROWN) 31 October 1996 The whole document	1-15, 17, 26-33
Y		16, 18-25

 Further documents are listed in the continuation of Box C See patent family annex

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 25 February 2004	Date of mailing of the international search report - 5 MAR 2004
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## C (Continuation).

## DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6196088 B1 (YOUNGREN) 6 March 2001 The whole document	1, 3-15
Y	Derwent Abstract Accession No. K1438A/46, Class Q41 Q42, SU 586240 A (VDOVIN) 17 January 1978	16, 18-25

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/NZ2003/000235**

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member
US	4813494	NONE
US	3568657	NONE
US	5699864	NONE
AU	16544/95	NONE
US	6196088	CA 2237381

END OF ANNEX